



ON GUARD

SAN FRANCISCO BAY GROUP 2



Group 2's Monthly Magazine

Welcome to On Guard

By Lt Col Noel Luneau, Public Affairs Officer
Group 2

Welcome to the new Group 2 Magazine - On Guard! Each month we will feature content that will highlight events, activities, and members in Group 2 and beyond. You will notice that the magazine is categorized into the sections of General, Cadet Programs, Squadrons, Emergency Services, Aerospace Education, Aircrew Professionalism and Safety, Education and Training and Diversity.

Why On Guard? For Cadet Programs On Guard can stand for color guards and honor guards. For Emergency Services On Guard can stand for the 121.5 MHz emergency frequency also known as Guard.

Job Openings. We are looking for editors for the Cadet Programs, Aerospace Education, and Emergency Services sections.

Article Submissions. This is your magazine so please contribute to it with short stories, photos, and short videos of your Squadron or event. We are looking for articles for August's edition, especially relating to Encampment. Please submit all articles to the Group 2 website [Here](#).

Also please tag Group 2 on Instagram and Facebook and we will collect posts, stories and reels there.

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GENERAL

MESSAGE FROM THE COMMANDER

LT COL SHAWN LAWSON
SAN FRANCISCO BAY GROUP 2 COMMANDER

Welcome to Group 2's new Magazine - On Guard!

Group 2 has a proud tradition of excellence and leadership throughout the Bay Area and California. On Guard will highlight all we do and what we can be proud of. This is especially important as we come out of the Pandemic and work toward a shared sense of community and family.

Each year, Group 2 is well represented in all three missions of Civil Air Patrol. Our Cadets regularly compete in Color Guard competition, the annual Bears and Wings Challenge, participate as Staff and students at Encampment, and we host many Integrated Leadership Program (ILP) schools. Our Cadet and Composite Squadrons in Watsonville, Palo Alto, San Carlos, San Francisco, San Jose, Hayward, Concord, and Livermore provide excellent leadership opportunities to our Cadet members. We provide an excellent opportunity to our Cadet members to receive flights in corporate aircraft and are happy that pilots from these squadrons as well as our Senior squadrons in Oakland and San Jose volunteer their time to fly them!



Group 2 Commander, Lt Col Lawson
Photo Credit: Lt Col Noel Luneau

Group 2 has a strong showing in Emergency Services. We conduct Tsunami Warning Missions along the coast, perform damage assessment and aerial reconnaissance after fires, earthquakes, and tsunamis, conduct search and rescue operations, participate in numerous homeland security missions, and train continuously throughout the year in order to safely, efficiently, and successfully execute these missions. We are also proud that Group 2 is routinely chosen to host our annual state-wide exercises.

Group 2 members participate actively in our third mission of Aerospace Education. Numerous members assist elementary and middle-school aged children by bringing CAP's Science, Technology, Engineering, and Math (STEM) based learning into classroom. We are extremely active in Cyber Patriot, CyberPatriot Cyber Camps, the Aerospace Education STEM Academy, and StellarXplorers.

I salute our many volunteers who spend their time, money, and energy on giving back to our community, state and nation through Civil Air Patrol. Our wonderful members make these things happen every day, protecting our homeland, saving lives, and developing our youth. I am looking forward to seeing you and working with you. If you are new to CAP, enjoy your time at one of our local squadrons where you will see and can be a part of this tremendous organization!

GENERAL



LIVERMORE AIRPORT
17 JULY 2021



FOR MORE INFORMATION:
Contact us on FaceBook or Instagram



REIGNITE
CAP
CELEBRATION

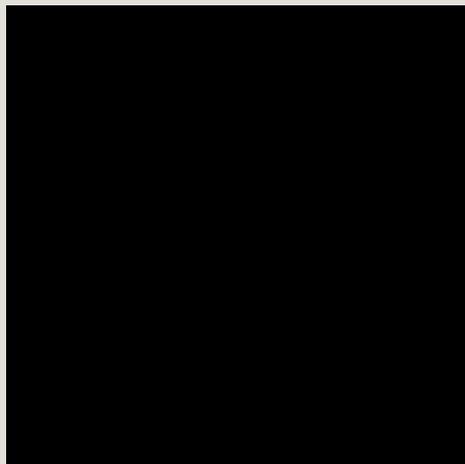
BY CAPT J. SPEARS

San Francisco Bay Area Group 2 is hosting an all-day “Reignite” celebration on July 17th (THIS SATURDAY) at Livermore Airport.

This free event, starting at 9:00AM, is to celebrate the resiliency of our members and families over the past year, to welcome our returning in-person training and activities, and to expose our members and visitors to different aspects of CAP to “reignite” the passion for our three missions: Aerospace Education, Cadet Programs, and Emergency Services.

Activities for the day are centered around “Food and Fun”. Lunch will be provided. Also, there will be orientation rides, a drill competition, hands-on Aerospace Activities, and an emergency services scavenger hunt. Guests are encouraged.

The logo was designed with inspiration provided by the Cadets that comprise our Cadet Advisory Council (CAC) - a group of young adults that advise and recommend changes to the Group Commander on cadet-related matters. The phoenix represents rebirth and renewal, the colors represent the fire of hardship and adversity our members endured over the last year while ensuring the continuation of operations, and "Reignite" has dual significance; the phoenix symbolically rises from the ashes, but this activity also exists to reinvigorate our members.



WING CONFERENCE
SEPT 29 – OCT 3

BY CAPT J. SPEARS

In celebration of our reopening and 80th anniversary, California Wing is excited to announce the return to our in-person Wing Conference.

The theme for the 2021 conference is “Together We Stand”.

Continued on next page...

GENERAL

WING CONFERENCE
SEPT 29 – OCT 3
...CONTINUED

BY CAPT J. SPEARS

To commemorate the countless hours our volunteer membership has spent on serving the nation and we have so much to celebrate and learn together and through this conference as together we continue to grow, continue to achieve, and continue to exceed expectations in all of our missions.

Registration for the Wing Conference is [Here](https://conference.cawgcap.org/):
<https://conference.cawgcap.org/>



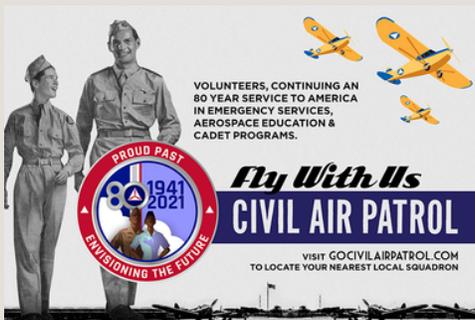
NAT. CONFERENCE
AUG 12 – AUG 14

FROM NHQ PROPS

It's time once again for the most exciting event of the year, Civil Air Patrol's 2021 Virtual National Conference.

Last year's event saw more than 10,000 members come together online to connect, learn and celebrate. This year, in celebration of our 80th anniversary, CAP is looking back on its Proud Past, and forward to Envisioning the Future.

Early Bird Registration opened June 22 and CAP is pleased to announce that if you register by July 12, your registration is free (\$50 ticket value).



Many thanks to our sponsors and command team for making this possible. In addition to free registration, members who sign up during Early Bird Registration will receive a specialized background for use during the conference, as well as a special discount code for a book written by one of our keynote speakers.

Just click the blue button to the right to register. 1941history2021 is the access code you'll use to sign up.

Registration for the National Conference is [Here](#).



CADET PROGRAMS



CADETS EARN NRA MARKSMANSHIP BADGES

BY 2ND LT. ROBIN YANG
JUNE 21, 2021

20 cadets attend California Wing's Group 2 NRA Marksmanship event in Hayward, CA.

Representing seven of the eight Squadrons with cadets in San Francisco Group 2 and ranging in age from 12 to 19, these cadets learned the basics of firearm safety and rifle marksmanship in the classroom before taking to the range. Combined they fired over 2000 rounds from .22LR bolt-action rifles as they earned their Marksmanship badges. "The event was a ton of fun for me, and I enjoyed this opportunity greatly. Having the opportunity to shoot within CAP is rare, so I think more of these events would be great for cadets," remarked one of the cadets who attended.

The NRA Marksmanship program has been the flagship of the NRA's training development program for over 80 years. Instructors and coaches use the qualification program as a guideline to train new shooters, both juniors and adults, in their clubs. Performance is measured against established par scores and any shooter who meets or exceeds those scores is entitled to the corresponding recognition awards for that rating.

The courses of fire in the program are designed to take shooters from beginning skill levels (Pro-Marksman and Marksman) through intermediate levels (Marksman First Class, Sharpshooter and Expert) up to the nationally recognized skill level—Distinguished Expert, the pinnacle of the program. By the time a shooter completes the Distinguished Expert rating, they have attained a proficiency level paralleling that of a competitively classified Sharpshooter.

The Civil Air Patrol recognizes this achievement and CAPR 39-1 Section 4.1.10.3.6.2 states the NRA Marksmanship badge may be worn by cadets as part of their Class B uniform. All 20 cadets earned Marksmanship badges of varying levels.

C/CMSgt Logan Yang and C/CMSgt Dakota Yang of Squadron 18 earned the highest award of Sharpshooter, and C/TSgt Cayden Gu of Squadron 10 and C/Amn Ethan Failano of Squadron 18 tied for the highest score of 199 out of 200 points possible.

After the event one cadet said, "I loved learning about rifle nomenclature and how to shoot them. I also enjoyed getting my marksmanship badge." Another added, "I like that I got to meet other cadets from different squadrons and have the opportunity to shoot again." Squadron 18 intends to make this an annual if not biannual event. Congratulations to all of the cadets!

If your Squadron or Group would like information on hosting an NRA Marksmanship event for CAP cadets contact 2nd. Lt. Robin Yang (robin.yang@cawgcap.org).

Photos continued on next page...

CADET PROGRAMS

CADETS EARN NRA MARKSMANSHIP BADGES
...CONTINUED

BY 2ND LT. ROBIN YANG
JUNE 21, 2021



Cadets learn basic firearm safety, rifle nomenclature, maintenance and other important information.
Photo Credit: 1st Lt. Hurst



Cadets practice the benchrest position before going to the range.
Photo Credit: 1st Lt. Hurst



The Savage Mk.II rifles used by the cadets are outfitted with precision diopter sights and can put two rounds into a single hole.
Photo Credit: 2nd Lt. Yang



Cadets take aim at the San Leandro Rifle & Pistol range. The regulation A-32 target is 3.3" wide and shot at a distance of 50' away.
Photo Credit: 2nd Lt. Yang

CADET PROGRAMS

2021 ULTIMATE BEAR
AND WINGS
CHALLENGE

CADET PROGRAMS
17-19 SEP, 2021

Save The Date!

Ultimate Bear & Wings Challenge is happening Sept 17-19th!

Prepare your teams! Team Registration to open late July. Staff applications to open on July 5th.

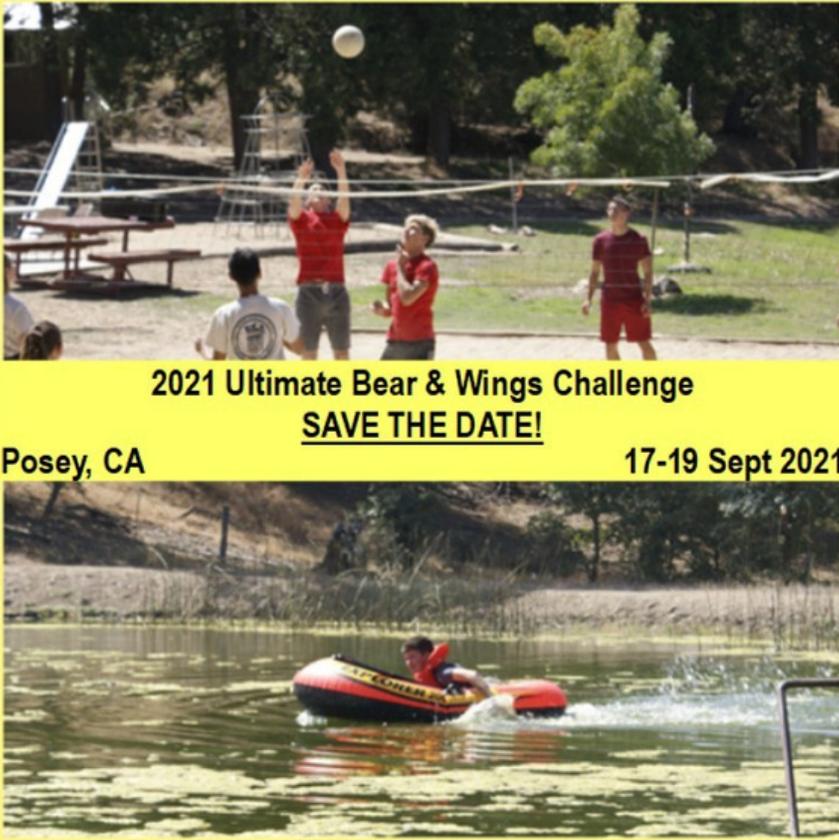
More information to come [Here](#):

In 2010, cadets of the California Cadet Advisory Council (CAC) worked to develop an event that was not training focused but one that aimed to have cadet and seniors come together to socialize and have fun. The initial concept was voted on and approved by the cadet council and then sent to the Wing Commander where it was also approved. The cadets involved in its creation continued to develop the program.

In 2011, CAWG held its first UBWC at Vandenberg AFB, where it has continued to call home every year since. Through development and the years of execution the mission and priorities of the activity have not changed.

Priority #1: For Cadets and Senior members from local squadrons to come together at a Wing level activity to socialize and have fun. To renew relationships built at other activities and create new relationships that will last for a lifetime.

Priority #2: The competition.



2021 Ultimate Bear & Wings Challenge
SAVE THE DATE!

Posey, CA **17-19 Sept 2021**



SQUADRONS



SQUADRON 10 PALO ALTO

CHANGE OF COMMAND MAY 18, 2021

Group 2 Commander Lt Col Shawn Lawson officiated at the Jon E. Kramer Composite Squadron 10 Change of Command and awards ceremony in Palo Alto.

Lt Col Lam completed her tenure as the Squadron Commander and was succeeded by 1st Lt Gross.

Congratulations Lt Gross and thank you for your service as Squadron Commander, Lt Col Lamb!



Lt Col Elsie Lamb cuts the cake while Lt Michael Gross assists



Outgoing commander Lt Col Elsie Lamb pins the Command Pin on Incoming commander Lt Michael Gross



SQUADRON 13 WATSONVILLE

IN PERSON MEETING MAY 25, 2021

Squadron 13 held a well-attended presentation by 1st Lt Nicholes on the Mars Helicopter.

He presented to the combined cadet and senior members.



Squadron members listen to a presentation on the Mars Helicopter



SQUADRON 18 HAYWARD

IN PERSON MEETING MAY 4, 2021

IT'S SO GREAT TO BE BACK!
Congratulations to all the promotions and new cadets!

We've also been missing our staff room firebird, so we HAD to get a picture for our 2 Billy Mitchell Achievements.

Keep it up, Firebirds!



Two Billy Mitchell Achievements



SQUADRON 36 SAN JOSE

GROUP 2 COMMANDER VISITS MAY 26, 2021

Group 2 Commander, Lt Col Shawn Lawson paid a visit to Squadron 36.

Squadron members were excited to see the new commander in person! Lt Col Lawson will be visiting all of the Group 2 squadrons in the next couple of months.



Group 2 Commander Lt Col Shawn Lawson speaks to the squadron members while Squadron Commander Capt Matthew Herbert watches

SQUADRONS



SQUADRON 44 CONCORD

CHANGE OF COMMAND JUNE 20, 2021

Group 2 Commander, Lt Col Shawn Lawson officiated the Squadron 44 change of command. Lt Col Christopher Suter took command from Maj Tim Albert.

Congratulations Lt Col Suter and thank you for your service as Squadron Commander, Maj Tim Albert!



Group 2 Commander Lt Col Shawn Lawson accepts the squadron flag from Maj Tim Albert while Lt Col Chris Suter watches



Group 2 Commander Lt Col Shawn Lawson passes the squadron flag to incoming commander, Lt Col Chris Suter



SQUADRON 80 SAN JOSE

PROMOTION TO LT COL JUN 24, 2021

San Jose Senior Squadron 80 congratulates David Bartlebaugh on his promotion to the CAP grade of Lieutenant Colonel in recognition of service in the US Air Force, Pennsylvania National Guard, and the USAF Reserves.

Lt Col Bartlebaugh, CAP served six years of active duty with the United States Air Force. Col Bartlebaugh was honorably discharged from active duty as a Captain (O3). Three years later, Col Bartlebaugh joined the PA National Guard where he was promoted to Major. After five years with PANG, Col Bartlebaugh transferred to the USAF Reserves as an Air Force Academy Liaison Officer, Commander for Eastern Missouri and advanced to the grade of Lieutenant Colonel (O5).

Col Bartlebaugh has twenty-eight years of combined service and retired with the title of Lt Col USAFR with all the status and privileges of a retired USAF officer.



Award night at Squadron 80



SQUADRON 86 SAN FRANCISCO

UNITED STATES AIR FORCE ACADEMY SPRING 2021

Squadron 86 is proud to announce that not one, but TWO, of our cadets have been admitted into the United States Air Force Academy. These cadets are none other than our current Cadet Commander, C/1st Lt Nicolas Tumaneng, and former Cadet Commander (2019-20), C/1st Lt Julian Moll! Join us in congratulating the new members of the USAFA Class of 2025 as they embark on their journey to fly, fight and win -- in air, space, and cyberspace!



Cadet Commander, C/1st Lt Nicolas Tumaneng, and former Cadet Commander (2019-20), C/1st Lt Julian Moll

SQUADRONS



SQUADRON 156 TRI-VALLEY

OPEN HOUSE AND AFA AWARDS MAY 06, 2021

Four Civil Air Patrol cadets from Pleasanton and Tracy were recognized for their service to the community today during a special awards ceremony. The ceremony marked the opening event for the open house held by the Livermore-based Tri-Valley Composite Squadron 156.

Cadet Sergeant Sriya Katreddi of Pleasanton was presented with the Air Force Sergeants Association Award to Outstanding Squadron Cadet Noncommissioned Officer of the Year. Cadet Chief Giulia Telli of Pleasanton and Cadet Lieutenant Lena Amato of Tracy were presented with the Veterans of Foreign Wars Award for Cadet NCOs and Cadet Officers respectively. Cadet First Sergeant Yuhui Wang was presented with a Commander's Commendation from the California Wing Commander.



Squadron members muster during their open house at Livermore Airport



SQUADRON 188 OAKLAND

FIFTH TUESDAY JUNE 29, 2021

Squadron members gathered to make sure -- first and foremost -- that our trusty propane grill, in deep storage since before the pandemic, was still up to the task of providing the membership with the necessary nourishment required to keep a busy squadron running. We participated in the National HF radio net, taxied our assigned aircraft over to maintenance, and acted as net control for the local NorCal VHF radio net but mostly we enjoyed the company and camaraderie of each other on one of the longest nights of the year.



"Make mine a double-double, please!"



SQUADRON 192 SAN CARLOS

GROUP 2 COMMANDER VISITS JUNE, 2021

Group 2 Commander, Lt Col Shawn Lawson paid a visit to Squadron 192.

Squadron members were excited to see the new commander in person! Lt Col Lawson is visiting all of the Group 2 squadrons in the next couple of months.

Several of their cadets are staffing encampment.

EMERGENCY SERVICES



GROUP 2 CHECK PILOTS TRAIN HAWAII PILOTS

BY LT COL NOEL LUNEAU

A pair of California Wing check pilot examiners spent 12-hour days from June 14-21 at Kalaeloa Airport on O’ahu to train Hawaii Wings check pilots.

The two California Wing pilots conducted training sessions The first day resulted in two new check pilots. When the week ended, the Hawaii Wing had six more pilots trained to operate Garmin G1000-equipped aircraft.

“It was an excellent week of training,” said Col. Chantal Lonergan, Hawaii Wing commander. “It highlighted the ‘One CAP’ philosophy, and we look forward to more joint training events.”.



CSM Griselda Concepcion, HIWG and CAWG CPE, Capt Keith Breton brief their sortie. Photo taken by Lt Col Rojo Herrera

Read the original, unedited article, [Here](#) on the Group 2 Website

And [Here](#) on CAP.news



SM Ray Johns, HIWG briefs his sortie to CAWG CPE’s, Capt Keith Breton and Maj Jeff Ironfield. Photo taken by Lt Col Rojo Herrera

Maj. Jeffrey Ironfield and Capt. Keith Breton, members of Tri-Valley Composite Squadron 156, worked with two sets of trainees, those who needed to become check pilots, check pilot examiners and instructor pilots, and those who needed to upgrade to technically advanced aircraft, such as Garmin G1000-equipped planes.



During the recent cooperative training event between Hawaii Wing and California Wing a CAP aircraft lands on Oahu. Video taken by Major Keith Breton

EMERGENCY SERVICES



CAWG TRAINS FOR A TSUNAMI

BY LT COL NOEL LUNEAU

Along the rugged Northern California coast, beachgoers arrive at a beach, blissfully unaware that an earthquake has struck 400 miles off the coast causing a tsunami that will be inbound within hours.



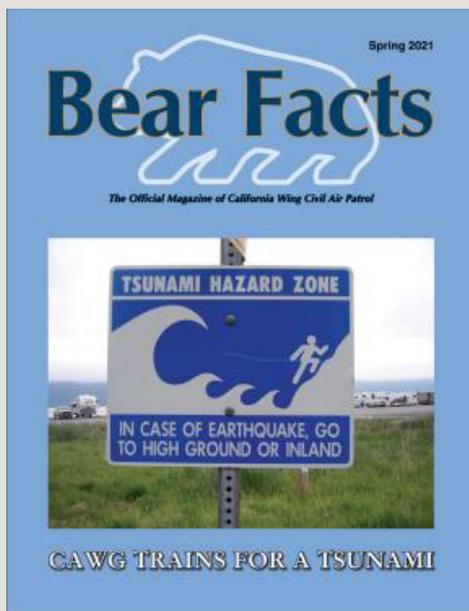
Capt. Luis Rivas preflight's the APAS speakers. Photo credit: Lt. Col. Noel Luneau

Meanwhile hikers in a remote coastal area are also unaware of the danger of the approaching tsunami. The National Weather Service has initiated the Emergency Alert System to warn residents, but some beachgoers, hikers, and residents along the shore will miss those alerts.

Fortunately, this is just a hypothetical scenario, and our beachgoers and hikers were not in any real danger today. However, the need to alert coastal residents and non-residents during an actual tsunami is real. This is when the Civil Air Patrol's (CAP's) Airborne Public Address System (APAS) becomes a vital resource for the National Weather Service to alert members of the public that are unable to receive the Emergency Alert System warnings.



Maj. Karin Hollerbach and Capt. George Zioulas preflight the Highbird-tasked aircraft. Photo credit: Cadet 2nd Lt. Apolinar Acevedo



The APAS is composed of two powerful speakers and a battery that sit in the baggage compartment of a CAP plane, and a control box and an MP digital audio player that sit in the rear seat. A custom baggage door with cutouts for the speakers completes the system. The range of the loudspeakers is at least one mile. It takes the aircrew about 30-minutes to install the APAS, and shortly thereafter they launch the aircraft and head towards the coast.

Continuing reading [Here](#) in the Spring edition of CAWG Bear Facts

EMERGENCY SERVICES



NIST TRAINING FOR SUAS

**BY CAPT KARIN HOLLERBACH
DATE, 2021**

Group 2 (and NorCal Group 5 and California Wing) attended NIST training for sUAS flight standards. Three Group 2 members (Capt Chris Devine, Capt Karin Hollerbach, and Lt Marty Nicholes), along with additional CAWG members Lt Garth Howard and Maj Craig Newton attended a 3-day training event using the NIST standards that Civil Air Patrol has adopted for sUAS flight evaluations.

Training consisted of learning how to fly and how to proctor (administer flight evaluations for) the Basic Proficiency Evaluation for Remote Pilots (BPERP) using the omnibucket systems that were built in class.

The BPERP requires precision as well as efficiency in flying; according to NHQ, it will serve to become the basis for Form 5u's in the future. Class also consisted of wide area search and other scenario training. Participants will be working to share these skills throughout the Wing.

Other participants included remote pilots from fire departments and law enforcement from throughout California and a few from out of state.

A big thank you to the NIST trainers and to our hosts at Alameda County Sheriff's Office for an incredibly fun and educational training.



*Capt Chris Devine, 2d Lt Garth J Howard, and Lt Marty Nicholes observe the sUAS flying.
Photo credit: Capt Karin Hollerbach*



*Capt Hollerbach operates the sUAS while Lt Marty Nicholes and Maj Craig Newton assist.
Photo credit: Lt Garth Howard*

EMERGENCY SERVICES



GROUP 2 JUNE SAREX

BY LT COL NOEL LUNEAU

Cadets and Senior members from Groups 2, 5 and 6 attended Group 2's SAREX on Jun 26-27 at Livermore Airport.

Six cadets learned the art of beacon searching. Senior members learned how to install and fly the Waldo sensor as well as how to conduct a highbird sortie.



Cadets J. Hockel, M. Hockel, B. Paterson, G. Benham, S. Benham, and T. Benham use a map in the search for a practice beacon at Livermore Airport. Photo credit: Cadet M. Hockel

The cadets trained on how to use a couple of different handheld direction finders and were then let loose on a practice beacon.

The practice beacon transmits a signal on 121.775 MHz and has a tone that simulates a real Emergency Locator Transmitter.

After a short time searching for the practice beacon, the cadet team lead by C/2dLt Mark Hockel, successfully found the practice beacon.



Photo credit: Capt Louise M Mateos

A bushy tailed visitor checked out the CAP members on the airport ramp.

The seniors mounted the WaldoAir sensor on an available aircraft and flew a Waldo mission to keep current in preparation for fire season. They also trained on how to successfully accomplish a Highbird communications platform sortie. By the end of the exercise six Waldo and two Highbird sorties were completed.



Senior Members assemble the Waldo Sensor at Livermore Airport. Photo credit: Maj. Kathy Brown

A bushy tailed visitor checked out the CAP members on the airport ramp.



Senior Members flew the Waldo Sensor at Livermore Airport. Photo credit: Capt Louise Mateos

AEROSPACE EDUCATION



**HIGH ALTITUDE
BALLOON
CHALLENGE**

BY CAPT J. SPEARS

Civil Air Patrol members have been invited to develop a project for the "CAP High-Altitude Balloon Challenge" which will launch on a mission to the edge of space, 100,000 ft above Earth. Our squadron will compete in the challenge to design a mission patch and science or engineering project(s) in SHARE Capsules, which will be flown from Indiana on a high-altitude balloon with LIVE tracking and an online event in August 2021.

Each squadron will need to complete all phases of the challenge to be eligible for top honors at the end of the challenge. StratoStar will provide the Student High-Altitude Research Experience (SHARE) kit, which will house each squadron's experiment(s) and be used to ship the projects to the launch site.

Curriculum and support to the AEOs to guide each squadron through this project. An introductory video is available on YouTube [here](#).

**FREE
CYBERPATRIOT
CYBER CAMPS**

BY CAPT J. SPEARS

The standard camp started today [July 12] and we have 35 enrolled cadets from 6 wings (CA, CO, NC, MD, OK, TX).



The advanced camp is for students who have some experience and want to learn additional concepts.

- Advanced camp student registration (July 26-30) - <https://forms.gle/vgH3va5swF4d uwYF6>

This year's camp will be designed around a six-hour day with lecture material and hands on lab learning Monday through Thursday. Friday is a mini CyberPatriot competition designed to reinforce the material that was learned during the week. These camps will be held virtually. Register now, time is running out!

AESA - JULY 18 - 24

BY CAPT J. SPEARS

The Aerospace Education STEM Academy (AESA) is accepting registrations now for this five-day, in-person event.



This year's AESA will be offered in Northern California for the first time and is being held at two Air Force Bases. At Beale AFB (near Marysville), cadets will get to take an orientation ride on a KC-135 Stratotanker, tour the U-2 high-altitude reconnaissance aircraft and participate in a unique one-on-one job fair.

Continued on next page...

AEROSPACE EDUCATION

AESA – JULY 18 – 24

...CONTINUED

At Travis AFB (near Fairfield) cadets will fly the Air Force's KC-10 Flight Simulator with professional instructors, tour the C-5 Galaxy and C-17 Globemaster and receive unique demonstrations from the Security Forces Squadron including their K-9, Explosive Ordinance, and Drone units.

All participants (at both bases) will participate in hands-on activities related to StellarXplorer, Aerodynamics, Hypersonics, Rocketry, and many other STEM topics. Cadets will receive personal support to complete your AE STEM Badge requirements.

Space is extremely limited... so act fast.

You can register at the [registration website](#).

CYBERPATRIOT

BY CAPT J. SPEARS

CyberPatriot is the National Youth Cyber Education Program created by the Air Force Association to inspire K- 12 students toward careers in cybersecurity or other science, technology, engineering, and mathematics (STEM) disciplines critical to our nation's future.



At the core of the program is the National Youth Cyber Defense Competition, the nation's largest cyber defense competition that puts high school and middle school students in charge of securing virtual networks.

Last year, Group 2's CyberPatriot competition teams ranked in the top 10% of all teams nationwide.



Squadron 156 cadets participating in the 2019 CyberPatriot competition

CyberPatriot exhibition rounds have started, and we are actively preparing for this year's competition.

If you are interested in participating in the CyberPatriot competition this year, please contact your Squadron or Capt Spears.

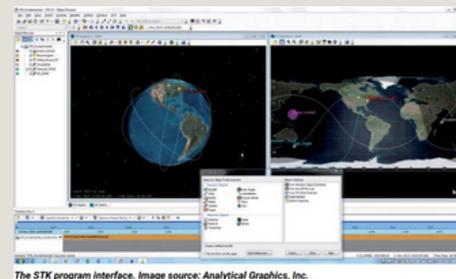
STELLARXPLORERS

BY CAPT J. SPEARS



StellarXplorers is a challenging, space system design competition involving all aspects of system development and operation with a spacecraft and payload focus.

Teams are given a scenario describing the system's mission and constraints and they provide a solution to a typical space design problem, such as orbit determination, satellite component selection, and launch vehicle planning. The entire simulation is conducted using a tool called "System Tool Kit" which is an industry standard space-mission planning and simulation tool.



The STK program interface. Image source: Analytical Graphics, Inc. System Tool Kit' is an industry standard space-mission planning and simulation tool

Form a team in your Squadron to enter this competition. This year, a Civil Air Patrol team in Oregon won the national competition.

Click [Here](#) and [Here](#) for more Information.

AIRCREW PROFESSIONALISM AND SAFETY



DOV INTRO

BY CAPT KEITH BRETON

What is the DOV department you ask? The formal name is "Standardization/Evaluation" or "Stan/Eval" and is tasked with ensuring that the CAP aviation programs (Airplane, Glider, sUAS and even Balloons) have qualified pilots that meet CAP requirements (can you say CAP regulation 70-1 and Form 70-5?).

In Group 2, the DOV airplane team is Capt Keith Breton and Lt Col Noel Luneau. Noel is also managing the glider responsibilities. At present we do not have an official sUAS DOV Officer, however, 1st Lt Margaret Salimi is supporting the sUAS program for Group 2. No Balloons in Group 2...yet.

PILOT CANDIDATE MENTOR PROGRAM

BY CAPT KEITH BRETON

As some/all of you may know, we have launched the Group 2 Pilot Candidate Mentor program to help standardize the preparation of our candidate CAP pilots.

This is also designed to help load share the large effort required to on-board new pilots.

The mentor team is lead group wide by Lt Col Randy Pesce, Capt Steve Swale and 1st Lt Alex Arnoldy. This team has worked hard to put together a syllabus and a collection of all the various CAP material available to help guide mentors from the various squadrons in mentoring our CAP pilot candidates.

In addition to increased standardization of our pilot cadre, candidates should be well briefed (and capable) on the execution of CAP procedures (building sorties, getting released, CAP specific airplane procedures, regulations, etc.).

"If you are an FAA rated pilot (ASEL) and are interested in becoming a CAP pilot, please contact your squadron commander about having a pilot mentor assigned to you."

EMERGENCIES PROCEDURES FLIGHT CLINIC

BY CAPT KEITH BRETON

What do you do when normal leaves and you are left with abnormal? The problem is we typically don't spend too much time preparing for the abnormal. This can be particularly devastating when in an aircraft. Louis Pasteur said, "Fortune Favors the Prepared Mind." To that end, to deal with the abnormal safely and effectively, we must be prepared.

Group 2 pioneered the Emergency Procedures Flight Clinic a few years ago and this year the clinic has been adopted by the entire California wing. It is available to all CAP rated airplane pilots to participate in.

The objective is for our pilots to periodically practice those (fortunately) rare events that transform a normal flight into the abnormal. Pilots can choose their own topics to explore under the watchful supervision of a clinic instructor/mentor pilot.

If you are interested, review the materials provided here... [Emergency Procedures Clinic Materials](#) ...and make contact with our Group 2 DOV team (Capt Keith Breton or Lt Col Noel Luneau).

AIRCREW PROFESSIONALISM AND SAFETY

BACK TO BASICS - DESCENT PLANNING

CIVIL AIR PATROL
STAN/EVAL
NEWSLETTER - JULY
2021



If you fly your Piper Cub at 500', planning your descent is easy. Strap on your oxygen mask, climb up to traffic pattern altitude, and then land. But for most pilots who fly a bit higher, descending can take a little planning.

If you are on an IFR flight plan, ATC will probably specify your descent with either an arrival procedure or other instructions. But sometimes what ATC gives you may not be advisable, so you need to know what is appropriate and request a different arrival. If you are VFR, then a descent is pretty much under your control. Here are some factors to keep in mind before you descend.

Don't hit anything. This may sound obvious but approaching an unfamiliar airport or even a familiar airport at night takes a bit of thought and planning. If you are at 6500' inbound for an airport at 500' AGL ten miles away, then a 600' per nm descent may be the answer but not if there is intervening terrain or towers in the way. Part of descent planning is to figure out how to descend safely and not just blindly descending.

Folks who regularly fly in the mountains know that not only do you need to worry obstacles in the path of your descent but maneuvering around terrain may also be required to descend efficiently.

Even in the flatlands, there may be some pretty tall radio towers or other obstacles in the way that one has to take into account.

Begin your descent at an appropriate distance away: Generally, we don't want to stay at cruise altitude, fly to the airport, and then spiral down (although in some cases that may be the best option). We should start our descent at a point that gives us a reasonable rate of descent. Something on the order of 500' per minute gives a good descent rate but there is a lot of flexibility here. Avoid any descent rate greater than 1000' per minute.

Doing that near the ground is just asking for trouble and doing that at higher altitudes may make for an uncomfortable ear popping descent. A good rule of thumb is the rule of three (fast airplanes may use the rule of 4 - an equally complex rule). It's easy to remember and works pretty well assuming terrain is not a big issue. The rule is to start your descent three miles out for every thousand feet of altitude. For example, if you are descending from 8500' into an airport with a pattern altitude of 1500' you need to lose 7,000'. Using advanced math $3 \times 7 = 21$ which means about 21 miles out we need to start descending. For our CAP aircraft, using 500' per minute works fine. But you just don't apply the rule at the beginning. Periodically check using your current altitude to see if you need to increase or decrease your rate of descent as the wind will be a factor. You also need to consider if you want to be at traffic pattern altitude a mile or so before you get to the airport (or you may want to overfly the airport for a look see at say 2,000 feet).

Continued...

The article is continued [Here](#) on the NHQ Stan Eval website.

Asst. DOV note: Descent planning with a GPS can be easier as setting the destination will provide an ETA.

First subtract the TPA from the present height and then divide the ETA in minutes to get the required descent rate in feet/min.

AIRCREW PROFESSIONALISM AND SAFETY

NASA ASRS – GOD’S GIFT TO AVIATORS

CIVIL AIR PATROL
STAN/EVAL
NEWSLETTER – JUNE
2021

Pilots and aircrew should be aware of and use the NASA Aviation Safety Reporting System (ASRS). This system allows us to report aviation safety incidents without fear of enforcement. For example, if you bust class B but report it in ASRS, you receive a degree of protection from enforcement.

One of the many advantages to filing an ASRS report is that it provides you some protection from enforcement actions. If you file a report documenting that you busted Class B or some other incident, if the FAA should come knocking you can produce that receipt and no enforcement action will be taken. So, it’s kind of a get out of jail card. This is to encourage the reporting of incidents even when a FAR was busted or some other untoward event. You have to read the fine print, however. The protection is not unlimited. You can only use this mechanism once every 5 years and if there is any criminal activity there is no protection. Willful acts of misconduct are also not covered. You must file the report within 10 days of the incident. You can read the specifics of the protections provided by the pilot in AC 00-46F also found here. Paragraph 12 is the key paragraph.

It would be a mistake to just use ASRS when you broke the rules. You should file a report whenever any safety incident occurs. For example, if you have a near miss in the pattern at your local non-towered airport, that would be a good reason to file a report. Include the circumstances, the reasons for the near miss, and perhaps even some musings on how the incident could have been avoided.

ASRS is not just a giant database sucking in all known safety data. It also provides lots of useful reports. You can subscribe to the ASRS CALLBACK which comes out monthly with a summary of certain safety highlights. Makes for really interesting reading.

Filing an ASRS report is easy, painless, and can be done online (yes, you can do it with paper as well). Just go to the homepage [Here](#) and click on the submit a report button. You can also view back issues of the ASRS Call Back and search the database. Note that the ASRS has been expanded to include UAS safety as well.

The article is continued [Here](#) on the NHQ Stan Eval website.



NORMALIZATION OF DEVIANCE

BY MAJ G.
MICHELOGIANNAKIS
CIVIL AIR PATROL
STAN/EVAL
NEWSLETTER – MAY
2021

Imagine that you decide to drive a new route on your way to work. There are large signs clearly stating that the speed limit is 65 mph, but the flow is moving at a 75-mph pace. Would you “go with the flow”, or would you follow the rules and drive at 65 mph? What if you chose 65 mph and then keep driving that route? Are you more likely to speed up to 75 mph at a later day?

Now imagine that you are driving at 75 mph but a few minutes later, you are suddenly the only car on the road. Would you slow down to 65 mph?

Let us shift to flying airplanes. Imagine a pilot outside of CAP, who is flying a Cessna 182 with a 15-maximum demonstrated crosswind component on landing. That pilot finds themselves in a situation where, for many reasons that are outside of our scope, feels pressured and lands with a 20-knot crosswind component. What will the pilot say to themselves after that? Do you think it would be “Phew, I got away with it now, but I won’t do it again” or maybe “Huh, I must be a better pilot than I thought”?

Continued on next page...

AIRCREW PROFESSIONALISM AND SAFETY

NORMALIZATION OF DEVIANCE

...CONTINUED

What if the pilot does it again? Are they more likely to shift to the second answer?

It is likely no surprise to anyone that pilots have egos. If they pull something like this off, they are tempted to conclude that it was skill instead of luck. They may not even consider that equipment, such as a heavier plane they were flying that day, helped them out and therefore may think they can rise to the challenge in any airplane. To make things worse, pilots are often under some kind of pressure.

The above discussion hints at the problem. Part of it is that humans are good at rationalizing. We do it every time we cut corners to justify our behavior. Then, rationalizing can change our behavior so what felt wrong before now feels normal. One example is instead of doing a detailed flight plan for every flight, to rationalize by answering "But I regularly fly this route and it usually takes me 20 gallons".

The first definition of normalization of deviance by Dr Diane Vaughan sums it up nicely: "The gradual process through which unacceptable practice or standards become acceptable.

As the deviant behavior is repeated without catastrophic results it becomes the social norm for the organization". (Ed note: Dr Dianne Vaughan wrote a fascinating study on the Challenger accident titled "Normalization of Deviance" which has since become a classic. If you have not read it, do so!)

Unsurprisingly, there have been numerous accidents attributed to normalization of deviance. One illustrating example is the 2014 crash of a Gulfstream on takeoff. In that unfortunate accident, the pilots had grown accustomed to not diligently running checklists and not checking for a gust lock because none was installed for as long as they were flying that airplane. This worked fine until one day when a gust lock was installed; the pilots failed to remove it (something that is called for four times in their checklists) and missed important cues to alert them of the problem.

NASA's shuttle Columbia and shuttle Challenger are other examples, as is the RJ-85 crash in Colombia with 71 fatalities. There is also a very informative and scary example from military operations.

The pilots and personnel in these situations were not inherently careless or bad pilots. They were just humans with the same potential flaws and tendencies that we all have. It could have been us in those situations.

Continued...

This excellent article by our Group 2 Deputy Commander is continued [Here](#) on the NHQ Stan Eval website.

DOV LINKS

PROFESSIONAL EDUCATION

Aircrew Professionalism

1. Extreme Professionalism
 - a. Lt Col Noel Luneau
 - b. [Grp 2 DOV page](#)
2. CAP Aircrew Professionalism
 - a. NHQ Aircraft Operations
 - b. [Link Here](#)
3. Aviators Code of Conduct
 - a. NHQ Aircraft Operations
 - b. [Link Here](#)
4. Aircrew Code of Conduct
 - a. NHQ Aircraft Operations
 - b. [Link Here](#)

Aircrew Education

1. Seasons of Safety
 - a. AOPA's Air Safety Institute
 - b. [Link Here](#)
2. Reality Check: The Runway Behind You
 - a. AOPA's Air Safety Institute
 - b. [Link Here](#)
3. Avoiding Prop Strikes
 - a. AOPA's Air Safety Institute
 - b. [Link Here](#)
4. Runway Safety Pilot Simulator
 - a. FAA - Runway Safety Website
 - b. [Link Here](#)

Accident Case Studies

1. The end of Six Delta Fox
 - a. Aviation Safety Magazine, James R. Warmkessel (CAP)
 - b. [Link Here](#) Note Paywall.
2. Accident Case Study: Faulty Assumptions
 - a. AOPA's Air Safety Institute
 - b. [Link Here](#)

EDUCATION AND TRAINING



SPECIALTY TRACK
GUIDE UPDATES

FROM PAWG ET
NEWSLETTER

Every specialty track study guide is due to be updated in 2021. NHQ isn't really giving much of a heads-up when the new pamphlets come out, but they are being made available on the National website on the [Pamphlets page](#). The goal is to (eventually) have signoffs in E-Services and have them cross-correlate between the tracks, just like the ES SQTR system does. As of writing this article, the following tracks have been updated:

- 2020: Cadet Programs
- 2021: Historian, Education and Training, Safety

See the excellent Jun 2021 PAWG ET Newsletter [Here](#).

INSIGNIA EXPLAINED - LEADERSHIP RIBBON

FROM PAWG ET
NEWSLETTER

A few people wrote the editor of the PAWG ET Newsletter [Here](#) in asking for clarification on how to wear the devices on the Leadership Ribbon, which shows the specialty track ratings. CAPM 39-1 gives you all the ins and outs, but very simplistically, here's how to wear the ribbon.

- Falls in precedence above the Membership ribbon, below the Loening (pronounced "loaning") ribbon.
- Purple section goes to the wearer's right.
- Only wear one (1) copy of the ribbon on your rack, no matter how many specialties you are training in.
- Use star-shaped devices, never triangles or propellers.
- When you have bronze and silver devices, the silver devices always go to the wearer's right.
- Maximum of three (3) devices may be worn, no matter how many specialties you are training in.

Wearing the Leadership Ribbon and Devices

 (no Leadership Ribbon) No Specialty Track Ratings (you don't qualify for the ribbon yet)	 First Technician Rating	 Second Technician Rating (there is no device to denote subsequent Technician ratings)	 First Senior Rating (Add one Bronze Star)
 One Master Rating (replace the lone Bronze Star with one Silver Star)	 Two Senior Ratings	 One Master Rating, One Senior Rating Note the Silver Star is on the wearer's right.	 Three or more (3+) Senior Ratings, but no Master
 Two Master Ratings Replace all previous Bronze stars with Silver ones.	 One Master Rating and Two Senior Ratings Note the Silver Star is on the wearer's right again.	 Two Master Ratings and One Senior Rating	 Three or more (3+) Master Ratings No Bronze Stars remain. This is the Leadership Ribbon shown "maxed out."

EDUCATION AND TRAINING



GROUP 2 EDUCATION AND TRAINING ACHIEVEMENTS IN JUNE

BY RICHARD WEST

Senior Member E&T Program Levels

Capt Hockel, Peter I (497974) [Sq44] Level 1 –
Membership Award 2021-06-14
SM Behrens, Gina-Marie A (660152) [Sq44] Level 1 –
Membership Award 2021-06-19
SM Fall, Dylan R (663459) [Sq188] Level 1 –
Membership Award 2021-06-21

Specialty Track Ratings

1st Lt West, Richard (594385) [Sq80] Professional
Development – Master 2021-06-09
2d Lt Winter IV, William (654850) [Sq36] Health
Services – Senior 2021-06-18

Wanted: CAP VoIU Instructors

Civil Air Patrol Volunteer University (CAP VoIU) provides the structure for implementing the Senior Member Education and Training Program. Think of CAP VoIU as a university structure with provosts, deans, chairs, and instructors. While the first three handle the administrative aspects of CAP VoIU, instructors are the key to making E&T work for senior members by providing opportunities to complete the required learning modules.

Unlike instructors for the legacy SLS and CLC, members must apply to become CAP VoIU Instructors, take the required training, and receive the endorsement of their chain of command. Only CAP VoIU Instructors are authorized to teach learning modules and award credit to participating members.

Without a sizable cadre of CAP VoIU Instructors, Group 2 will be unable to effectively offer E&T opportunities to the broader membership. We need you to become a CAP VoIU Instructor. Anyone can become a CAP VoIU Instructor. We strongly encourage Commanders, Deputy Commanders (for Seniors), and Education and Training Officers to apply to allow you to teach learning modules as part of your squadron's regular meetings. CAP VoIU Instructors can teach either "online" as part of an online cohort run through CAP VoIU or "face-to-face" which allows for in-person one-on-one or small group learning (including hybrid models using Teams). CAP VoIU Instructors can teach any level they have already completed, so anyone who has completed Levels 2 and 3 would provide valuable service in helping the bulk of our members advance through those levels.

Link to application [Here](#).

(Please answer "All" for question 9: "What level(s) do you want to teach?")

Link to process [Here](#).



EDUCATION AND TRAINING

2021 CALIFORNIA WING CONFERENCE SESSIONS

BY RICHARD WEST

The 2021 California Wing Conference will feature 35 speakers presenting 60 different conference sessions. Two sessions will be dedicated to the Senior Member Education and Training Program. These are an opportunity to learn how to navigate the program and successfully implement the program within your unit.

<https://conference.cawgcap.org/>

- Mechanics of E&T Systems -
(1530-1630 Thursday, 30 Sep 2021)

On 4 Aug 2020, Civil Air Patrol replaced the Senior Member Professional Development Program with the Senior Member Education and Training Program. This conference session will cover the basics of the program, clarify terminology, and review the tools used to administer the program. With the program's one-year anniversary behind us, this session will provide a preview of any changes coming in FY22.

- How to Conduct E&T at the Unit/Group -
(0800-0900 Saturday, 2 Oct 2021)

Civil Air Patrol's Senior Member Education and Training Program promised to democratize the professional development. Gone were Squadron Leadership Schools, Corporate Learning Courses, Region Staff Colleges, and National Staff Colleges with limited offerings, travel, and lodging expenses. Members could pursue their professional development on their own terms and timelines close to home. However, how many squadrons and groups have been able to develop their programs to fulfil this noble goal? This conference session will cover the requirements to establish an instructor core, which echelon should handle which levels, and some tips on how to manage a successful program. Attendees will also be invited to share their experiences, good or bad, as an instructor or student.

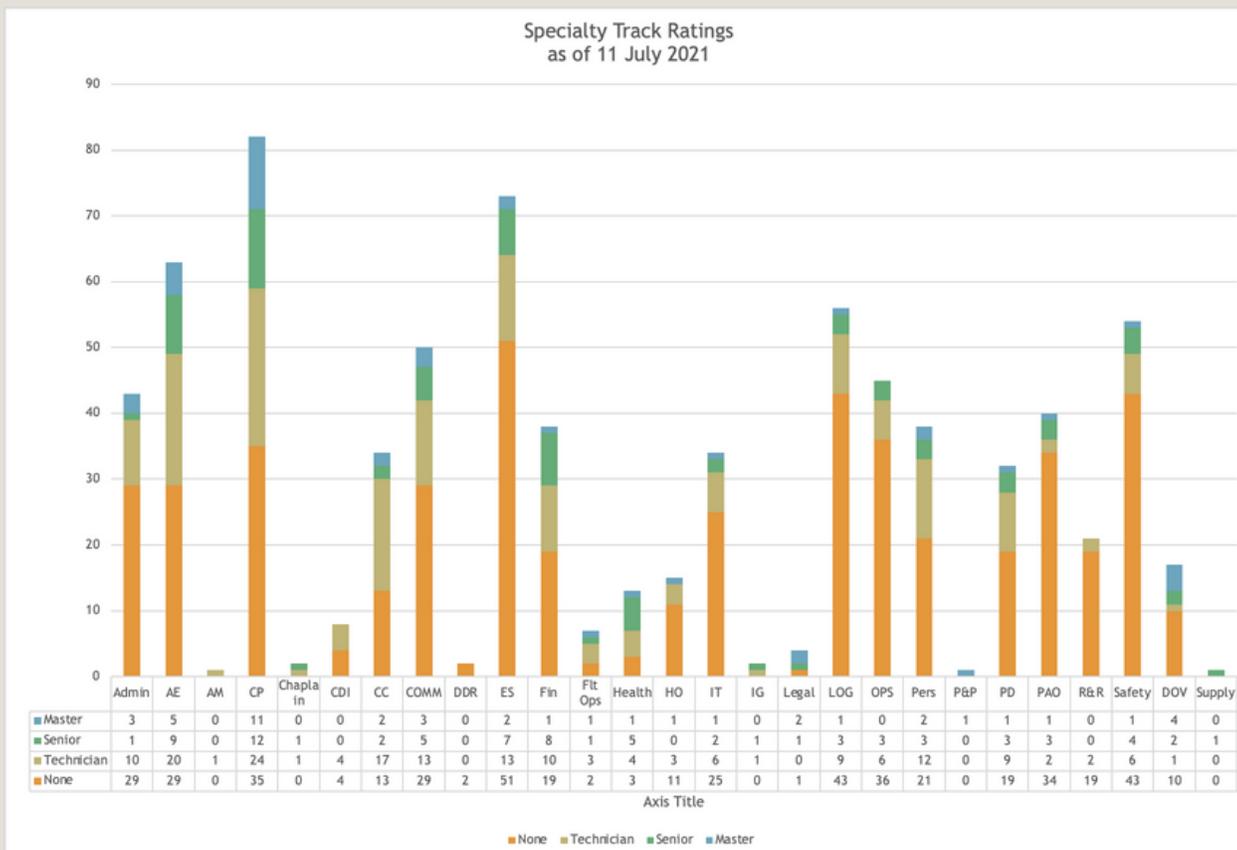
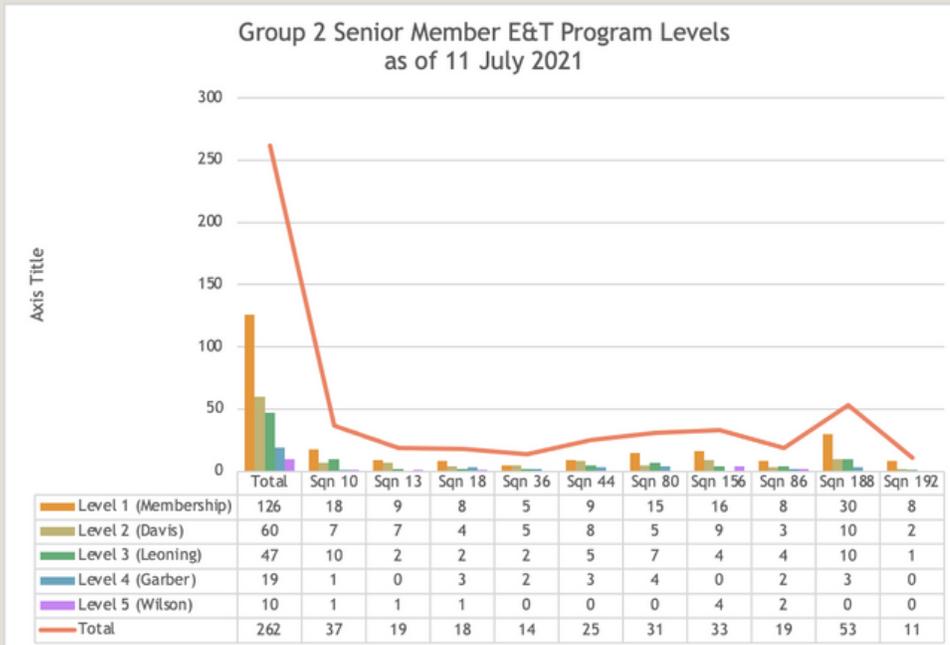
While not required, it is recommended that attendees who are not too familiar with the structure of and tools for the Education and Training program attend the Mechanics of Education and Training conference session prior to attending this session.



EDUCATION AND TRAINING

GROUP 2 EDUCATION AND TRAINING AT-A-GLANCE

BY RICHARD WEST



DIVERSITY

PRIDE IN ALL WHO SERVE

CIVIL AIR PATROL
FACEBOOK POST
JUN 22, 2021

We celebrate the diversity of all our Civil Air Patrol auxiliary airmen. We are proudly diverse in identity but unified in our shared commitment to the freedom and dignity of all in the communities we serve.

#pride #PrideMonth2021 #CivilAirPatrol



JUNETEENTH

CALIFORNIA WING - CIVIL AIR PATROL
FACEBOOK POST
JUN 18, 2021

"I had reasoned this out in my mind; there was one of two things I had a right to, liberty, or death; if I could not have one, I would have the other; for no man should take me alive." – Harriet Tubman
Today is the first year that Juneteenth will be recognized as a federal holiday.

Juneteenth is often regarded as the USA's second Independence Day, because not everyone was granted freedom from oppression on July 4, 1776.

#civilairpatrol #cawgcap #cawgcadets #cawgdiversity #juneteenth

"On Freedom's Eve, or the eve of January 1, 1863, the first Watch Night services took place. On that night, enslaved and free African Americans gathered in churches and private homes all across the country awaiting news that the Emancipation Proclamation had taken effect. At the stroke of midnight, prayers were answered as all enslaved people in Confederate States were declared legally free. Union soldiers, many of whom were black, marched onto plantations and across cities in the south reading small copies of the Emancipation Proclamation spreading the news of freedom in Confederate States. Only through the Thirteenth Amendment did emancipation end slavery throughout the United States."

"But not everyone in Confederate territory would immediately be free. Even though the Emancipation Proclamation was made effective in 1863, it could not be implemented in places still under Confederate control. As a result, in the westernmost Confederate state of Texas, enslaved people would not be free until much later. Freedom finally came on June 19, 1865, when some 2,000 Union troops arrived in Galveston Bay, Texas. The army announced that the more than 250,000 enslaved black people in the state were free by executive decree. This day came to be known as 'Juneteenth,' by the newly freed people in Texas." - Smithsonian National Museum of African American History

"So no matter our color or our creed, no matter where we come from or who we love, today is a day to find joy in the face of sorrow, to count our blessings and hold the ones we love a little closer. And tomorrow is a day to keep marching" - President Barack Obama